

## Dielectrophoretic Behavior of Janus Particles and Biomolecule-Conjugated Janus Particles

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Dielectrophoresis (DEP) is a transport phenomenon of the polarizable particles under a non-uniform electric field. This technique can be utilized to separate the particles with different physicochemical properties. In our study, we have observed the DEP behavior of the polystyrene-based Janus particles with and without bioconjugation under the varying AC conditions. DEP behavior of these particles was monitored and compared depending on the biomolecule conjugation. Such experimental results of the current study could be applied for detection and separation of the specific biomolecules.